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COMMUNIST CHINESE MANPOWER AND
PHYSICAL PRODUCTION, 1950-1955

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CHINESE MANPOWER AND PHYSICAL PRODUCTION

A. Population and Manpower.1. Population.

The Chinese Communist census, which appears to have been fairly carefully conducted, shows the following distribution of the Chinese mainland population in mid-1953:

		(000s)
Total	100.00%	532,585
Sex:		
Male	51.82%	301,396
Female	48.18%	230,639
Age:		
0-4 years	15.6 %	90,883
5-9 "	11.0 %	64,085
10-17 "	14.48%	84,353
over 18 "	58.92%	343,259
Residence:		
Rural	36.74%	505,334
Urban	13.26%	77,251

The magnitude of the total population is much higher than most previous estimates, few of which exceeded 500 million. However, population estimates in the 20th century have necessarily been highly speculative, for the last population count by a central government in complete control of all of China was in 1850, showing a population of 430 million.

The sex distribution is not surprising. Previous surveys had found a highly masculine population in various sample districts, and such a condition is not unusual in societies where frequent childbirth and a socially inferior status raise female mortality and where a short life expectancy reduces the effect of the naturally greater female longevity.

The age distribution is perhaps significant, for the age group 5 to 17 years is unusually small in comparison with the age group 0 to 4 years and the age group 18 to 24 years (not listed in the census report but reported subsequently in an article on youth groups). The average size of one year age cohort within these categories are as follows:

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(000,000)

0 - 4 years (5 years)	18.2
5 - 9 " (5 ")	12.8
10 - 17 " (8 ")	10.5
18 - 24 " (7 ")	11.4

These figures if accurate would suggest that lower fertility and/or higher mortality operated to reduce the survivors of those born during 1936-48 below what would have been expected under demographic rates existing before and after this period.

The population of mainland China is overwhelmingly rural. The population was recorded by place of residence, and did not include the urban transient population as part of the urban population, which according to data released in the food rationing program would raise the total urban population to about 90 million. Urban areas were designated not on the basis of size but rather on a political assessment of the importance of industrial and trade activities; some rural villages are larger than some of the smaller towns. However, it is estimated that about two-thirds of the urban population resides in cities of over 50,000 population.

In connection with the 1953 census, the Chinese Communists announced that they had begun the collection of vital statistics in areas with a total population of 30 million, which in 1953 shows a birth rate of 37 per 1,000 population, a death rate of 17 per 1,000, and a rate of natural increase of 20 per 1,000. This sample, however, was heavily weighted with urban populations, and in 1955 an article on population growth noted that rural populations had higher birth and death rates and a lower rate of natural increase (18 per 1,000 in the sample cited) than urban areas. In 1956 the Minister of Food announced that the mainland population in 1955 was officially estimated at 603.23 million, which appears to be a mid-year estimate and suggests a population growth during 1953-55 of about 17.5 per 1,000 population.

On the basis of both the Chinese Communist data and previous notions of Chinese fertility, it seems reasonable to estimate the current birth rate between 40 and 45 per 1,000 population. Taking the mid-point of this range and subtracting the officially estimated rate of natural increase, the current death rate may be placed at roughly 25 per 1,000 population.

The demography of mainland China is changing but the extent of these changes cannot yet be determined. Pre-World War II population surveys suggested that birth rates ran from 40 to 45 per 1,000 population, reflecting a society in which marriage was early and universal and continuous child-bearing the rule.

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Death rates were believed to be about 30 per 1,000 population in normal times, but to have been raised to 35 or 40 per 1,000 population on an average owing to the frequent ravages of famine, disease, and civil disorder. The Chinese Communists have been able to reduce the death rates by establishing civil order throughout the mainland, distributing food supplies rationally, and providing rudimentary public health services to a large part of the population. By 1967, if the regime is reasonably successful in carrying out its ambitious education and health programs, the death rate may well have declined to as little as 15 per 1,000 population.

The prospect of declining mortality has faced the Chinese Communist with the possibility of explosive population growth which could, in the absence of changes in the birth rate, double mainland China's population in the course of one generation (about 28 years), and the government now appears to be taking some steps towards reducing fertility. The population problem appears to have been recognized in government circles at least by 1954. Marxist ideology and Soviet policy have been no help to Chinese Communist leaders, for Marxism claims that a rational social system will release the productivity to support any given population while the Soviets have followed expansionist policies. During 1955 and 1956 the Chinese Communist regime appears to have rationalized the ideological conflict by stating that population growth is desirable, but that birth control should be encouraged for those families who, for health or welfare reasons, need to limit their numbers.

Whether social attitudes to reduce fertility can be quickly established in more than the very small urban sector is a moot question. Since rural areas contain 6/7 of the population, total fertility cannot be significantly reduced without a change in rural fertility. In 1954 government officials told the Atlee Mission that they expected a decline in urban fertility but could foresee no prospect for changes in rural fertility. The Atlee Mission was given population projections which implied average annual rates of growth of 1.6 percent, 1.8 percent, 2.7 percent respectively during the first, second, and third Five Year Plans, implying a continuance of present fertility rates. Recently, the population growth to 1967 has been projected on an assumption of an average annual growth rate of 2.0 percent.

At an annual growth rate of 2.0 percent, the population in 1967 would number 760 million, and there would be some changes in its structure consistent with its movement from a slowly-growing to a rapidly-growing population, such as reduced masculinity and increased proportions in the young dependent age groups.

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Table 1

Population of Communist China, 1950-67

<u>Year</u>	<u>Population</u> (millions)	<u>Birth Rate</u> (per 1,000 population)	<u>Death Rate</u>
1950	562.5	42.5	32.5
1951	568.2	42.5	32.5
1952	574.0	42.5	27.5
1953	582.6	42.5	25.0
1954	592.8	42.5	25.0
1955	603.2		
1967	760.0	35.0	15.0

2. Labor Force.

Chinese Communist employment data, as contained in the Five Year Plan and the National Statistical Bureau reports, covers only those workers employed for wages and salaries, constituting a very small portion of the labor force. However, from the estimated age and sex distribution of the population, the present labor force policies in Communist China, and comparative data from other Far East countries, it is roughly estimated that the labor force constitutes about 52 percent of the population, or about 300 million in 1952 and 310 million in 1954. In Table 2, employment in non-farm occupations in addition to workers employed for wages and salaries has been estimated from scattered data, and the residual has been assigned to the agricultural labor force.

3. Wage and salaried employees.

The labor force reported in the Five Year Plan for 1952 included 21,020,000 persons working for wages and salaries. Approximately half of these workers were then in private employment. Estimates of employment in this sector in 1954 have been made, based partially on announced figures in the National Statistical Bureau reports and other official sources and partially on estimates derived from 1957 employment targets and output data for 1954. Available data is inadequate to support reliable estimates of employment in this sector for other years.

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Table 2

Estimated Number of Workers in Communist China
by Category of Employment
1952 and 1954

(Thousands)

<u>Category</u>	<u>1952</u>	<u>1954</u>
Workers and clerical staff	21,020	23,020
Handicraft	10,000	10,000
Trade (excluding peddlers)	5,300	5,500
Military	2,500	2,500
Public security	1,500	1,500
Other ^{a/}	16,680	15,980
Subtotal	<u>57,000</u>	<u>58,500</u>
Unemployed	3,000	3,500
Agricultural	240,000	248,000
Total	<u>300,000</u>	<u>310,000</u>

a. The residual includes the following occupations: domestic service, personal service, self-employed, pedicab drivers, junkmen (their employees are included under workers and clerical staff), and professional workers.

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Table 3

Number of Workers and Clerical Staff
in Communist China
1952 and 1954

(Thousands)

Sector	<u>1952</u>	<u>1954</u>
Industry	5,406	6,400
Trade	3,454	3,800
Finance	305	377
Transport, post and telecommunications	716	1,000
Agriculture, water conservancy, forestry, and weather bureau	239	250
Construction	1,020	2,000
Government organs and people's organizations	1,523	1,400
Culture, education, and health	2,232	2,500
Municipal public utilities	41	60
Private handicraft and transport	6,035	5,243
Total	<u>21,020</u>	<u>23,020</u>

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understatement of prewar output, the Communist figures for total output of food crops in 1952 and considered reasonable. The trend in the Communist series from 1949 to 1952, however, almost certainly involves increased statistical coverage more than it represents actual increases in production, and so a different trend is estimated based on weather conditions and other evidences of actual output. The continued increase in output claimed for 1953 and 1954 when weather was unfavorable and the serious floods had occurred in 1954 suggest either that production claims for these years were exaggerated or that statistical coverage continued to improve. Within the total for food crops it is believed that the claims for wheat output are too low and that the output of rice and

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potatoes is somewhat overstated.

Estimates of cotton production based on requirements for yarn production, estimated rates of home consumption, and estimates of native yarn production results in output figures (for 1952) that are somewhat below the Communist claims. The last available estimates of livestock population in China indicate that Communist figures are too high.

2. Industry.

The Five Year Plan figures for absolute unit production for 1952 and Statistical Reports since 1952 establish the production claimed for almost all of the commodities listed in Table 5. Exceptions are sulphuric acid, aluminum, copper, merchant vessels and 1955 production of lumber. Announcements of industrial production in Communist statistics are not sufficiently above previous capacity estimates based on plant-by-plant studies to raise serious questions of their reliability. Statistical reporting was organized and improved during this period and consequently figures for later years are more reliable than for earlier years.

Table 5

Production of Selected Commodities
Communist China, 1954 and 1955

<u>Commodity</u>	<u>Unit</u>	<u>1954</u>	<u>1955</u>
Coal	Million MT	30.0	93.6
Crude Petroleum	Million MT	.790	.966
Electric Power	Billion KWH	11.0	12.3
Crude Steel	Million MT	2.23	2.85
Copper	Thousand MT	12.6	13.0
Aluminum	Thousand MT	0	0
Sulphuric Acid	Million MT	.231	.252
Cement	Million MT	4.6	4.5
Machine Tools	Each	15,940*	13,708*
Generators	Thousand KW	55	108
Locomotives	Each	52	98
Freight Cars	Each	5,445	9,258
Motor Vehicles	Each	0	0
Merchant Vessels	Thousand GRT	1.2	3.6
Lumber	Million Cubic Meter	21.1	20.0
Cotton Cloth**	Million Linear Meters	4,474	3,770
Rubber Footwear	Million Pairs	84.22	96.85

* While unit production of machine tools declined in 1955 compared with 1954, tonnage of machine tools increased by an unspecified amount.

** Includes only cotton cloth from modern mills and handicraft workshops and excluding individual handicraft production using machine-made yarn or a mixture of machine and native yarn.

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Table 6

Index Numbers for Output of Selected Commodities
 China, 1936, 1942, 1949-1955
 (1952=100)

	<u>1936</u>	<u>1943</u>	<u>1949</u>	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>
Coal	62	99	49	64	80	100	109	126	147
Crude Petroleum	29	73	28	46	70	100	143	181	222
Crude Steel	25	68	12	45	66	100	131	165	211
Copper	4	29	19	50	75	100	136	158	161
Aluminum*									

* No production except in 1943 when 8,600 MT were produced.

Table 7

Fuel Production in China
 1936, 1950, 1955
 (In million metric tons of coal equivalent)

	<u>1936</u>	<u>1950</u>	<u>1955</u>
Coal	36.5	38.0	36.9
Hydroelectric Power	0	0.3	0.6
Crude Petroleum	0.2	0.3	1.3
Total	<u>36.7</u>	<u>38.6</u>	<u>38.8</u>

Chinese production of coal estimated at 0.93; hydroelectric power equivalent 1,000 kwh equal to 0.6; crude petroleum at 1.3 kcal equivalent. Natural gas production in China is negligible.

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Table 8
Agricultural Production in Communist China
Five-year Average, 1951-1955

	<u>Unit</u>	<u>Five-year Average 1951-1955</u>
Rice	Million MT	62.8
Wheat	Million MT	24.6
Coarse Grains	Million MT	49.3
Potatoes	Million MT	56.2
Cotton (Ginned)	Thousand MT	994
Wool (Greasy)	Thousand MT	34.3
Sugar (Raw)	Thousand MT	534
Cattle & Buffalo	Million head	43.5
Pigs	Million head	77.7
Sheep and goats	Million head	53.3
Horses	Million head	6.0

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Table 9

Indexes for Basic Food Crops and Cotton
1950-1955

	Basic Food Crops a/		Cotton	
	This estimate	Chinese Communist claims	This estimate	Chinese Communist claims
1936	93	92	66	65
1950	88	81	67	55
1951	93	88	81	31
1952 b/	100	100	100	100
1953	99	101	96	91
1954	97	103	88	82
1955	105	112	118	117

a. Includes rice, wheat, miscellaneous grains, field peas and beans, soybeans, and potatoes at a grain equivalent of 0.25 of gross weight.

b. The base year estimates are (1) basic food crops: this estimate 162 million tons as compared to Communist claim of 163.9 million tons and (2) ginned cotton: this estimate 1.1 million tons compared to the Communist claim of 1.3 million tons.